#4 COLORS

SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: #4 COLORS

PRODUCT USE: Marking Ink


CHEMICAL FAMILY: Mixture

CAS NO.: NOT AVAILABLE (MIXTURE)

Not recommended for: Consumer Use

Manufacturer/Supplier:

PANNIER CORPORATION
207 SANDUSKY STREET
PITTSBURGH, PA 15212-5823 U.S.A.

24 Hr Emergency Telephone Number: INFOTRAC 1-800-535-5053

SECTION 2 - HAZARDS IDENTIFICATION

Warning: Health

Risk statements: irritating to eyes, respiratory system, throat and skin. Repeated exposure may cause skin dryness or cracking. Harmful if large quantity ingested - can cause nausea, vomiting and narcosis.

Safety statements: avoid contact with skin and eyes. Keep container tightly closed. No smoking!

Potential health effects: High concentrations may cause nervous system disturbances and narcosis.

Chronic: excessive exposure may cause kidney, liver and possibly blood disturbances.

Emergency and first aid procedures:

Inhalation: Essentially no irritation when used at room temperature.

EYES: Eye contact will be mildly irritating.

SKIN: Prolonged or repeated contact may dry and irritate skin. Dermatitis may result.

INGESTION: Can cause nausea and vomiting if large quantities are ingested.

See sections 8, 11 - the hazards are based on 100% of the contained materials. They will be reduced by their lower concentration.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>CAS number</th>
<th>weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENE GLYCOL &amp; HIGHER GLYCOLS</td>
<td>111-46-6</td>
<td>70</td>
</tr>
</tbody>
</table>

**No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.**

SECTION 4 - FIRST AID MEASURES

Inhalation: essentially no irritation when used at room temperature.

Eyes: eye contact will be mildly irritating.

Skin: prolonged or repeated contact may dry and irritate skin. Dermatitis may result.

Ingestion: can cause nausea and vomiting if large quantities are ingested.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing media: alcohol foam, co2, dry chemical, water fog

Special firefighting procedures: water may be used to cool closed containers to prevent explosion when exposed to extreme heat. Full protective equipment may be needed to protect firefighters from hazardous combustion products.

Unusual fire and explosion hazards: during emergency conditions, overexposure to decomposition products may cause a health hazard.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Steps to take in case material is released or spilled: remove by suitable inert absorbing material.
SAFETY DATA SHEET

SECTION 7 - HANDLING AND STORAGE
Precautions to be taken in handling and storing: avoid excessive inhalation of vapor or mist.
Other precautions: In accordance with good industrial practice, handle with care and avoid unnecessary contact. Use only with adequate ventilation. Wash thoroughly after handling. For industrial use only. HMIS personal protective equipment is dependent upon conditions of use.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
Occupational exposure limits

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Control measures: general ventilation should be sufficient for most conditions.
Respiratory protection: none normally required. However, when required, its use must be in compliance with all OSHA health and fit testing requirements, as given in 29CFR 1910.134.
Protective clothing: use of rubber or plastic gloves recommended for prolonged or repeated contact.
Other protective clothing or equipment: use protective cream when skin contact is likely.
Eye protection: safety eyewear should be available to avoid accidental contact.
Work / hygienic practices: wash hands before eating, drinking or smoking. No smoking in work area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
Boiling point: 212 – 475 deg. F. Specific gravity (h2o=1): 1.1
Vapor density: heavier than air evaporation rate: slower than ether
Material V. O. C.: 6.60 lb/gl (908 g/l) vapor pressure: 0.0 mm hg @ 77 deg. F
Solubility in water: partially soluble
Appearance and odor: moderately viscous practically odorless
Flash point: 290 deg. F method used: open cup
Flammable limits in air by volume - lower: 1.7% upper: 10.6%

SECTION 10 - STABILITY AND REACTIVITY
Stability: stable
Conditions to avoid: none
Incompatibility (materials to avoid) Contact with strong acids, alkalies or oxidizers
Hazardous decomposition or byproducts May produce carbon monoxide, carbon dioxide, oxides of nitrogen, and other hazardous decomposition products.
Hazardous polymerization: will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION
Individual ingredient hazards
Diethylene glycol - ingestion: ld50, 16,000 mg/kg - rat. Skin absorption: ld50, 5,000 MG/KG- rabbit. Vapor - n/a
None currently known.
Medical conditions generally aggravated by exposure: dermititis.

SECTION 12 - ECOLOGICAL INFORMATION
NDA

SECTION 13 - DISPOSAL CONSIDERATIONS
Waste disposal method: incineration is preferred, in compliance with local, state and federal regulations. Refer to SDS caution information before attempting cleanup.

SECTION 14 - TRANSPORT INFORMATION
DOT proper shipping name: printing ink
Packing group: n/a
DOT hazard class: n/a
DOT UN/NA number: n/a
Hazard subclass: n/a

SECTION 15 - REGULATORY INFORMATION
Toxic substances control act: all of the ingredients are listed in the TSCA inventory.
SARA 313/312: listed as health hazard - diethylene glycol

SECTION 16 - OTHER INFORMATION
Disclaimer
The information and recommendations contained herein were obtained from sources believed to be generally reliable, but, we make no warranty concerning their accuracy or sufficiency, and we will not be held liable for claims relating to any party’s use of or reliance on information or recommendations contained herein.

HMIS codes:  H – 2, F – 1, R – 0, P -

Legend:  nda - no data available  n/d - not determined  n/e – not established